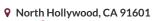
ANDREW LIANG

Software Engineer

@ liang.y.andrew@gmail.com **4** 630 863 9260 ■ 11135 Weddington St US Citizen, (Inactive) Secret Clearance % andrewliang.me in liang-y-andrew itsabigaundy





Series 57

EXPERIENCE

Software Engineer

Belvedere Trading LLC August 2019 - March 2020

Chicago, IL

- Bolster profits by at least \$500,000 through introduction of dynamic position calculation and representation in trading applications.
- Decrease trader downtime by automating algorithm setup & creation for new products.
- Simplify company strategies via maintenance and expansion of automated hedging systems.

Systems/Software Engineer

Northrop Grumman Corporation

June 2018 - August 2019

Rolling Meadows, IL

- Shipped robust core observation and recording framework to both company employees and clients
- Provided most efficient version of defense capability to client by modeling product and optimizing its parameters
- Reduced learning curve for 50+ engineers on core company testing software library by automating documentation using Jenkins and Python

Full Stack Developer

Hack4Impact UIUC

February 2018 - May 2018

- **V** Urbana-Champaign, IL
- Shipped an interactive map based web application using React, Redux, and Flask to the nonprofit organization Neighborhood News Bureau
- Bolstered client productivity by incorporating an intuitive copy-paste user interface
- Built all map-related endpoints for the RESTful API

PROJECTS

Trading Bot

March 2020 - Present

- Employ AI algorithm in Python (Jupyter) to analyze prevailing market conditions and make profitable trades
- Enforce risk management checks to minimize avoidable losses
- Prevent overfitting and ensure validity of model via rigorous backtesting tools

Lunar Lander

March 2020 - May 2020

• Solve the OpenAl Gym Lunar Lander environment using a Double Deep Q-Learning Agent with prioritized experience replay

PUBLICATIONS

Journal Articles

• Liang, A., S. Yau, and H. Zuo (2016). "A sharp estimate of positive integral points in 6-dimensional polyhedra and a sharp estimate of smooth numbers". In: Science China Mathematics 59 (3), pp. 425–444.

SKILLS

Machine Learning Matplotlib **Neural Networks** Numpy Jupyter Simulation & Modeling UNIX/Linux **Numerical Analysis** Behave Flask React Redux **Jenkins** .NET WPF Automation & Test

CERTIFICATIONS

Securities Industry Essentials

LANGUAGES

Python	C++	SQL	C#	Matlab	
C Java JavaScript			(TH	HTML/CSS	
English Chinese Spanish					

RESEARCH

Mathematics

University of Illinois at Chicago

2010 - 2014

- Proved the Yau Geometric Conjecture to be true for all cases in six dimensions, producing an estimate for the Dickman-de Bruijn function
- Presented and defended research at the Dongrun-Yau Science Awards regional competition
- Published a fifty-page research paper to Science China Mathematics (Liang, Yau, and Zuo 2016)

EDUCATION

M.Sc., Computer Science

Georgia Institute of Technology

₩ January 2019 - Present

 Dual Concentration in Machine Learning and Computational Perception & Robotics

B.Sc., Engineering Physics University of Illinois at Urbana-Champaign

max August 2014 - May 2018

• Dual Concentration in Computational and Theoretical Physics.